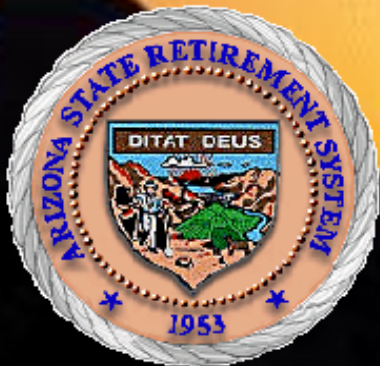


Arizona State Retirement System

ASRS General Information Presentation



June 2011

Estimates are utilized



Table of Contents

- I. Introduction**
- II. Retirement Plans Discussed**
- III. Funding Models and Implications**
- IV. ASRS Pensions**
- V. Issues and Remedies**
- VI. Fiscal Status and Projections**
- VII. Contribution Rate Status and Projections**
- VIII. References**



Introduction



ASRS Provided Programs

- 1. Defined Benefit Pension Plan**
- 2. Health Insurance Program & Supplement**
- 3. Hybrid Retirement Plan "System"**
- 4. Long Term Disability Program**
- 5. Supplemental Savings Plans**



ASRS Statistics (June 30, 2010)

- ☐ **Total membership approximately 525,000**
- ☐ **Appropriated FY2011 Budget \$24.7 million**
 - Not a State General Fund Budget
- ☐ **Annual distributions \$2.3 billion**
- ☐ **Annual contributions \$1.7 billion**
- ☐ **Employee pays 50% of all costs**
- ☐ **Average annual retirement benefit: \$19,840**
- ☐ **Average years of service of retiree: 19.5**
- ☐ **Average age of retiree: 69.4 years**



A.R.S. 38-712 Conveys Primary Intent of ASRS

- ☐ Provide incentive in recruitment and retention
- ☐ Contribute toward competitive total compensation package
- ☐ Provide employers with the benefits of a stable workforce
- ☐ Promote a high level of public service
- ☐ Provide a base retirement benefit



Retirement Plans Discussed



Forms of Retirement Plan

❑ What is a “Defined Benefit” (DB) Retirement Plan?

- A form of retirement plan where retirement benefits can be determined ahead of time and is based upon a known formula. Social Security, Military Pensions and the ASRS are examples of Defined Benefit retirement plans.

❑ What is a “Defined Contribution” (DC) Retirement Plan?

- A form of retirement plan where the retirement benefits are not known ahead of time and are based upon contributions made, investment returns realized, and expenses paid. 401(k)s and IRAs are examples of Defined Contribution retirement plans.



DB Plan & DC Plan Comparison

Defined Benefit	Defined Contribution
+ Guaranteed lifetime benefit	+ Less complex
+ Predictability of future retirement benefit	+ More portable
+ Greater retirement equity	+/- Individualized investment decision making
+ Less Expensive per benefit level	+/- All risk held by employee



Why are Large DBs **Typically Less Expensive?**

- ❑ **DB typically results in lower cost per level of retirement benefit because:**
 - DB typically has higher rates of return
 - Professional asset allocation
 - Greater time horizon and risk tolerance
 - Greater diversification
 - DB participants need not plan for outliving assets
 - Therefore less savings required



Funding Models



Funding Models

☐ **Pre-Funding**

- Build up investment portfolio equal to accrued liabilities

☐ **Pay-As-You-Go**

- Build up investment portfolio only as a liquidity buffer

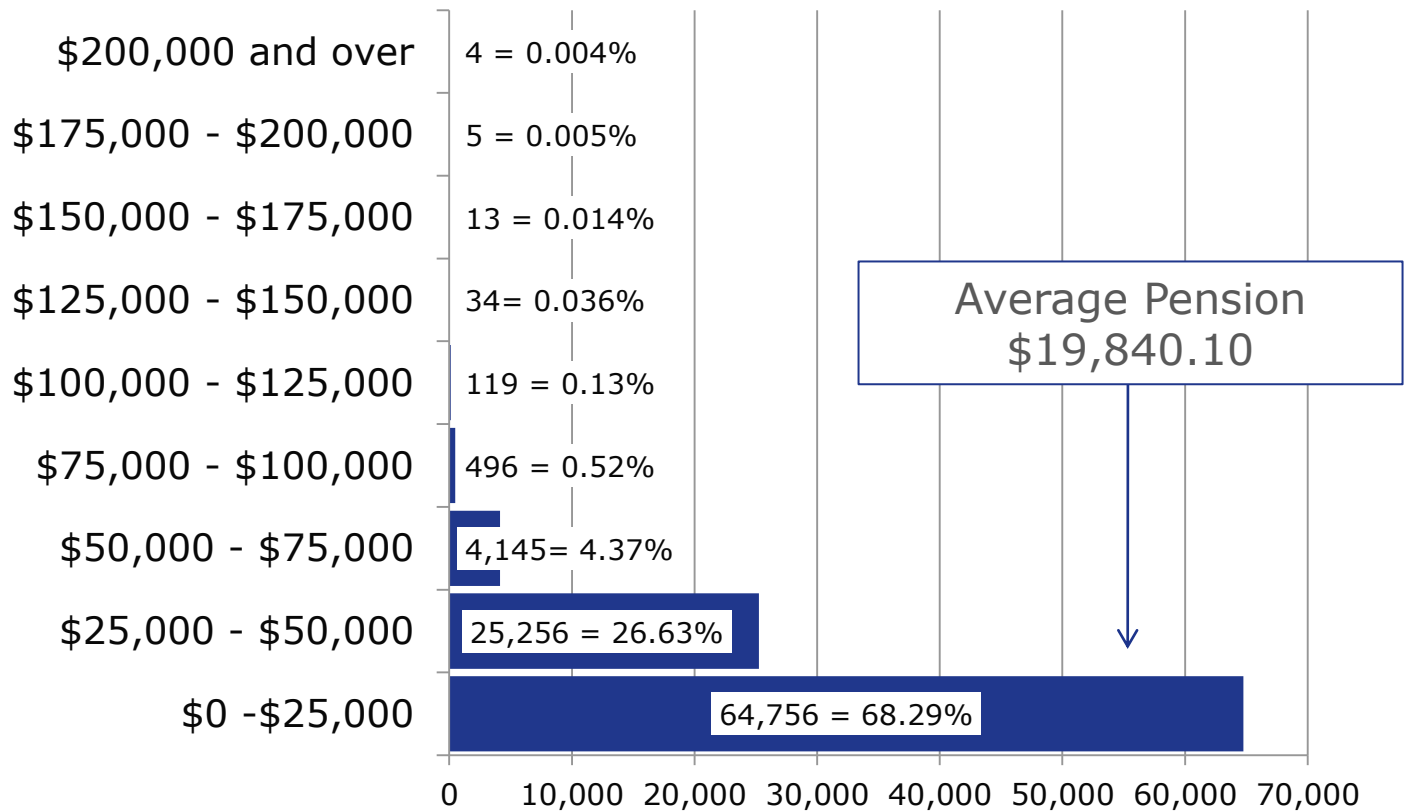


ASRS Pensions



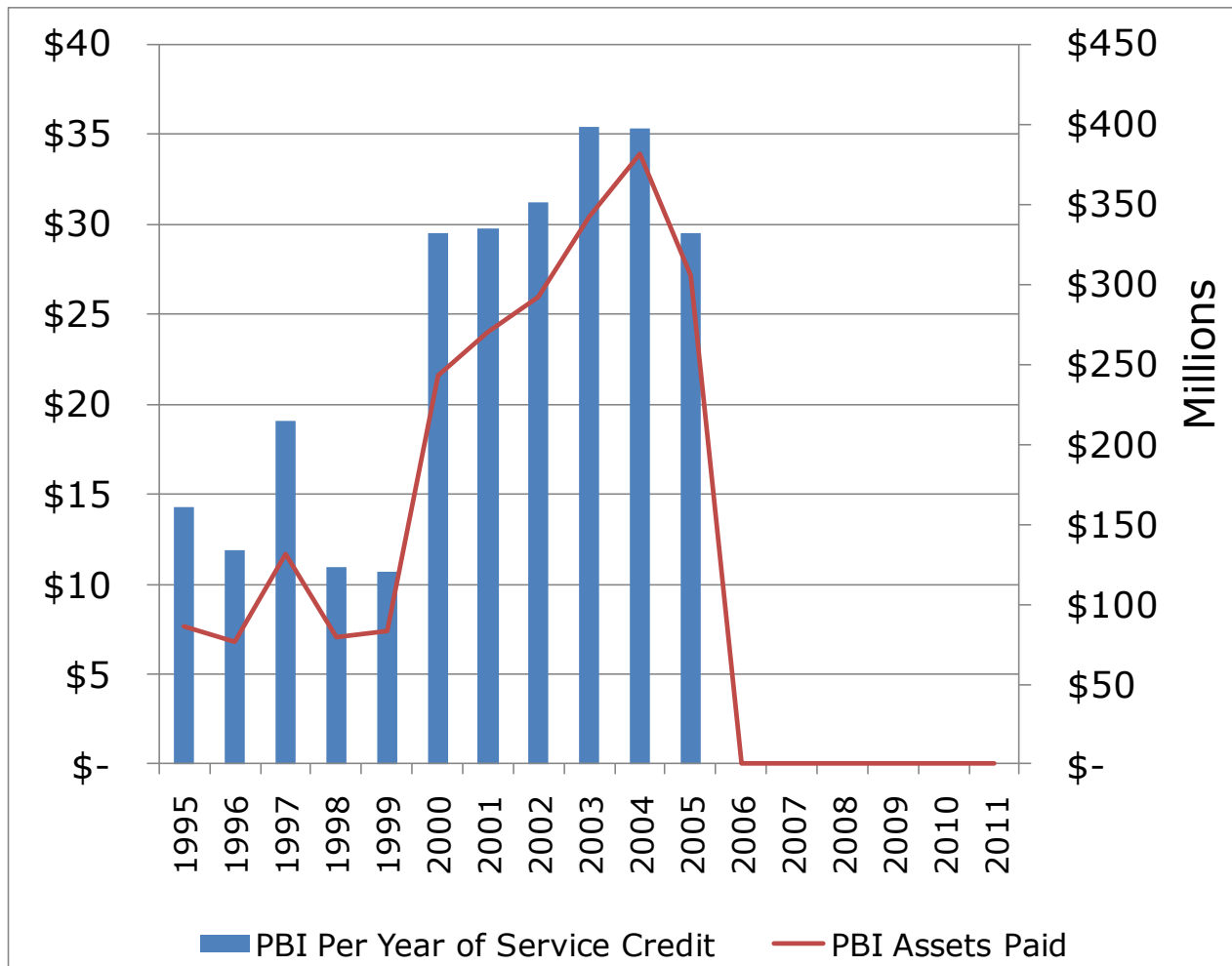
Distribution of ASRS Pensions as of June 30, 2010

Average Years of Service
36.7
37.3
34.9
33.8
33.8
33.5
32.3
28.5
15.1





PBI History





Issues and Remedies



Reasons for Recent Changes in Funded Status

- ☐ **Low investment returns during FYs 2001-03 and FYs 2008-09**
- ☐ **Change from EAN to PUC (1989)**
 - Low contribution rates during 1990s+
- ☐ **Benefit improvements prior to 2002**
- ☐ **Certain expensive and ineffective plan design features (most remedied)**
- ☐ **Improving life expectancies of retirees**



Issues Past & Present

Key Plan Design Features Causing Contribution Rates to Increase

- DB Plan Membership Decreases Not a Plan Design Feature
 - Return to Work Contributions Remedy in Process Since 2008/09
-

❑ Remedies Applied

- Service Purchase Inequities: Remedies 2004
- Refund Accruals: Remedies 2004
- Early Retirement Incentives: Remedies 2004
- Miscellaneous: Remedies 2004+
- Modified Deferred Retirement Option: Remedies 2006
- Increasing Longevity: Remedies 2006, 2010
- Salary Spiking: Remedies 2009, 2010
- Refund Amounts: Remedies 2010

ASRS Cost Savings Initiatives

Estimated as of June 30, 2010, in Millions of Dollars

Action	Calendar Year Proposed	Calendar Year Adopted	Reduction in Total Contribution Rate*	Annual Reduction in Total Contribution Amount	Present Value of Savings on Closed Group Basis		Present Value of Savings on Open Group (No Growth**) Basis	
Cost Savings Initiatives Contained in Current Valuation & Reflected in Lower Current Contribution Rate¹					Past	Future	Past	Future
Change basis for service purchases from normal cost to actuarial present value (APV)	2003	2004	0.60%	\$56.52	\$470.31	\$509.69	\$470.31	\$1,614.70
Correction of Permanent Benefit Increase (PBI) reserve	2003	2004	0.04%	\$3.77	\$31.18	\$47.53	\$31.18	\$47.53
Decrease interest credited on withdrawn contributions from 8% to 4%	2004	2004	0.27%	\$25.43	\$211.73	\$253.78	\$211.73	\$661.77
sub-total, past and future			0.91%	\$85.72	\$713.22	\$811.00	\$713.22	\$2,324.00
sub-total, savings in current valuation			0.91%	\$85.72	\$1,524.22		\$3,037.22	
Cost Savings Initiatives Contained in Future Experience²					Past	Future	Past	Future
Long Term Disability (LTD) program design changes	2003	2004	0.02%	\$1.88	\$16.16	\$28.04	\$16.16	\$45.14
Reimbursements for early retirement incentives	2003	2004	0.18%	\$16.96	\$140.98	\$205.14	\$140.98	\$330.27
Increase interest rate on payroll deduction agreements (PDAs) from 0% to 8%	2004	2004	0.16%	\$15.07	\$125.66	\$186.34	\$125.66	\$299.51
Pop-up restrictions	2005	2006	0.41%	\$40.37	\$225.10	\$470.16	\$225.10	\$756.96
Rescinding modified Deferred Retirement Option Plan (mDROP)	2005	2006	0.50%	\$47.06	\$274.41	\$572.09	\$274.41	\$919.45
LTD changes to offsets and pre-existing condition period	2005	2007	0.15%	\$14.13	\$64.93	\$107.99	\$64.93	\$318.46
Recapture of unclaimed monies	2007	2008	0.01%	\$0.60	\$2.88	\$7.38	\$2.88	\$11.88
Eliminate 80% cap on retirement benefits	2008	2009	0.04%	\$3.77	\$4.59	\$49.46	\$4.59	\$79.63
Require 20/20 Rule for dual employment situations	2009	2009	0.04%	\$3.49	\$4.24	\$51.39	\$4.24	\$51.39
Eliminate enhanced refunds	2005	2010	0.16%	\$15.07		\$331.85		\$331.85
Replace Rule of 80 with Rule of 85	2006	2010	0.30%	\$28.26		\$278.02		\$278.02
Replace 36-month average salary with 60-month average	2006	2010	0.25%	\$23.55		\$303.29		\$303.29
sub-total, past and future			2.22%	\$210.21	\$858.95	\$2,591.15	\$858.95	\$3,725.85
sub-total, savings emerging in experience			2.22%	\$210.21	\$3,450.10		\$4,584.80	
GRAND TOTAL			3.13%	\$295.93	\$4,974.32		\$7,622.02	

*These changes to the total contribution rate are multiplied by current payroll to give annual savings amounts in the next column. The annual savings amounts are then converted to the present values shown in the last two columns. These values include both accumulated past savings and estimated future savings. The savings from basing service purchases on actuarial present value is a reduction in future service liabilities. For the reduction in the interest crediting rate and the changes to LTD offsets and pre-existing condition period, the savings arise from reductions in future service and past service liabilities. Other Actuarial Valuation Basis savings are reductions to past service liabilities, i.e., capitalizations of the annual savings amounts over 30 years. Recapture of unclaimed monies will occur every year, but the numbers above are converted to a level annual savings amount.

** No growth scenario means that the projection maintains the size and age distribution characteristics of the current active population.

Costs above give the combined effect of each bill -- if a bill changes three plan provisions, the cost of each reflects the adoption of the other two provisions.

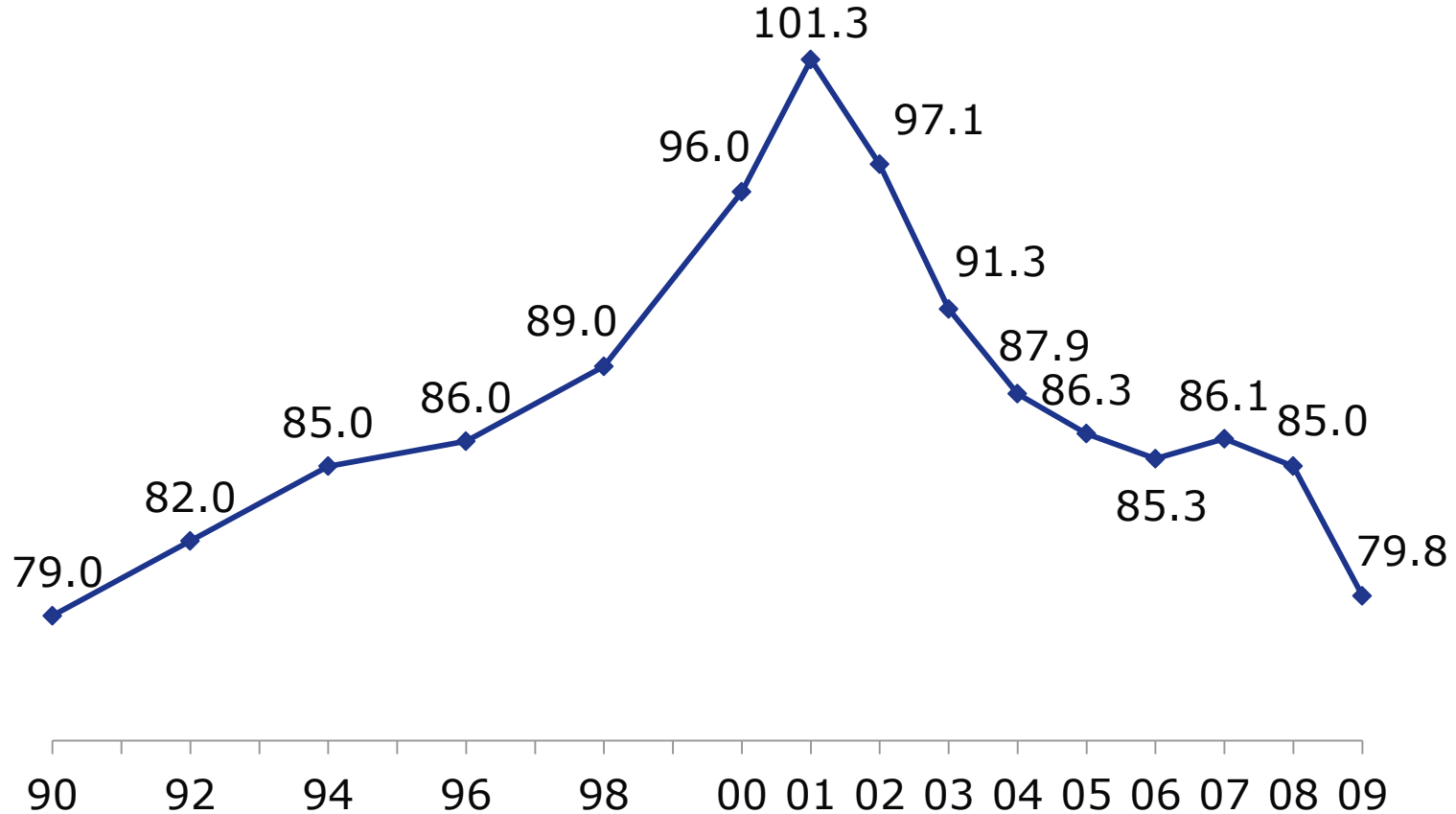
Some of these changes will not be reflected in their entirety in the current valuation report, but will be captured in future reports as actuarial gains. For example, the Plan valuation contains no assumption on Payroll Deduction Agreements (PDAs), so the absence of interest charges in the past has been reflected as an actuarial loss. The change to 8% interest charges will end the losses and eventually reduce the total contribution rate by 0.15%.



Fiscal Status and Projections



Public Fund Survey: Plan Funded Statuses

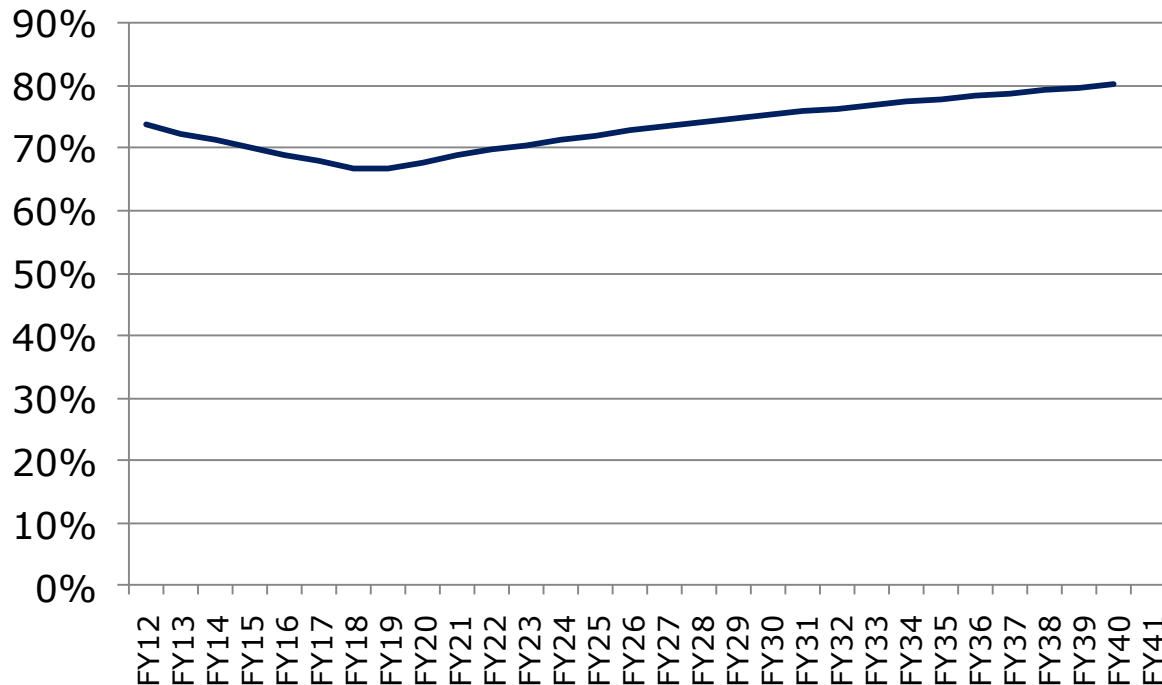


Source: NASRA - Public Fund Survey: Summary of Findings for FY 2009



Defined Benefit Pension Plan Funded Status Projections (June 30, 2010)

Actuarial Value*



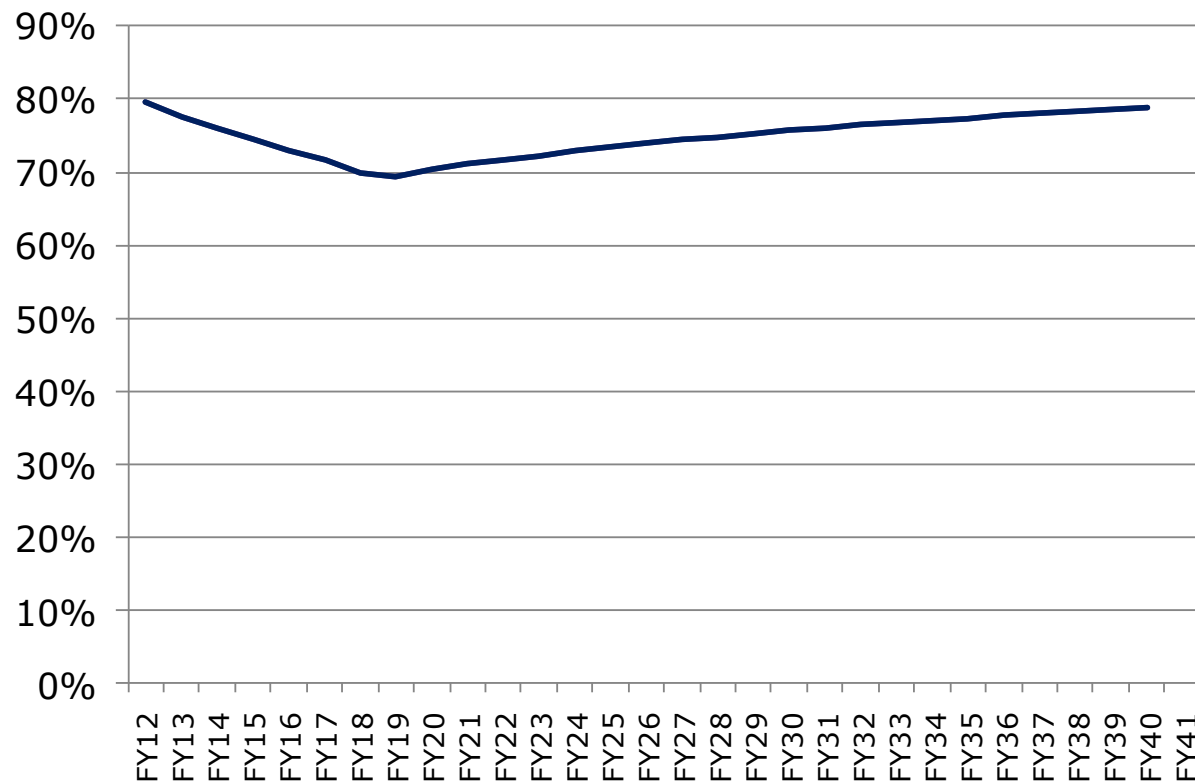
Based on June 30, 2010 Projections with constant 8% Investment Return and 0% Population Growth

* Excludes potential PBIs



Health Insurance Plan Funded Status Projections (June 30, 2010)

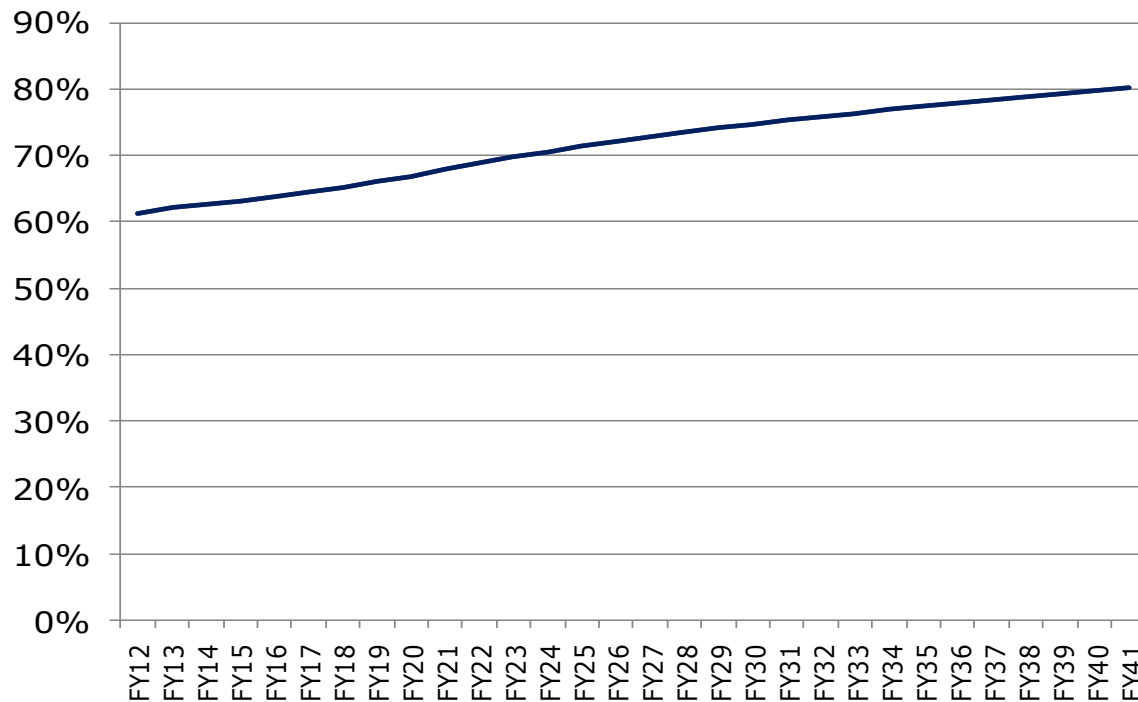
Actuarial Value





Defined Benefit Pension Plan Funded Status Projections (June 30, 2010)

Market Value of Assets*



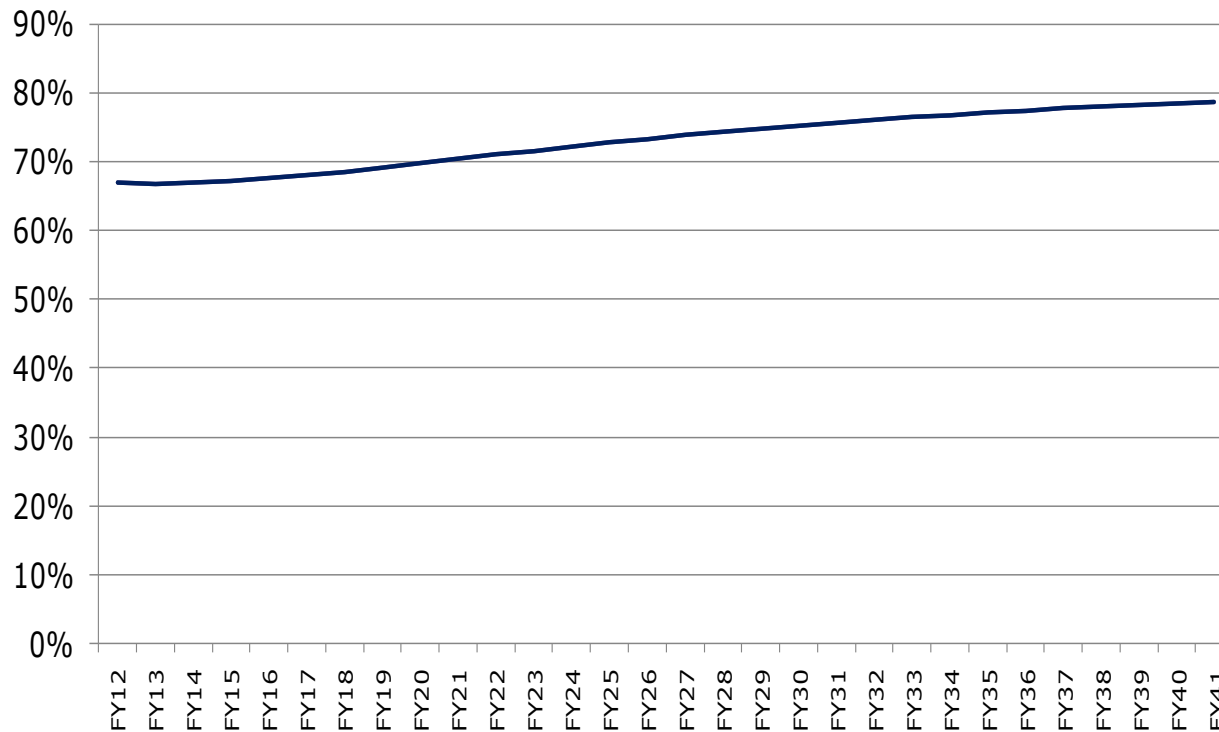
Based on June 30, 2010 Projections with constant 8% Investment Return and 0% Population Growth

* Excludes potential PBLs



Health Insurance Plan Funded Status Projections (June 30, 2010)

Market Value of Assets



Based on June 30, 2010 Projections with constant 8% Investment Return and 0% Population Growth



HBS Funding

❑ **As of June 30, 2009 Arizona was:**

- Better funded than any other state in the nation for health care benefits, at 69 percent.
- ASRS Actuarial Funded Status was 87.1%.
- ASRS Actuarial Funded Status was 84.2% on June 30, 2010.
- 1 of 2 states with greater than 50% OPEB funding (Arizona, Oregon)
 - 4 states: 25% - 50% funded (Alaska, Ohio, North Dakota, Wisconsin)
 - 3 states: 10% - 24% funded (Kentucky, Colorado, Utah)
 - 39 states: 5% funded or less
 - 1 state not reported (Nebraska)
- 1 of 5 states that contributed their entire actuarially required OPEB contribution for 2009

❑ **Just over 5% of OPEB liability is funded nationwide**

Source: PEW Center on the States (2011). *The Widening Gap: The Great Recession's Impact on State Pension and Retiree Health Care Costs.*

❑ **As of June 30, 2006 AZ was:**

- 1 of 6 states on track to fully fund OPEBs in the next 30 years
- 1 of 3 states with greater than 50% OPEB funding
 - 5 states 11-41% funded
 - 4 states 1-10% funded
 - 33 states 0% funded
 - (5 states not reported)

❑ **Only 3% of OPEB liability is funded nationwide**

Source: PEW Center on the States (2007). *Promises with a Price: Public Sector Retirement Benefits.*

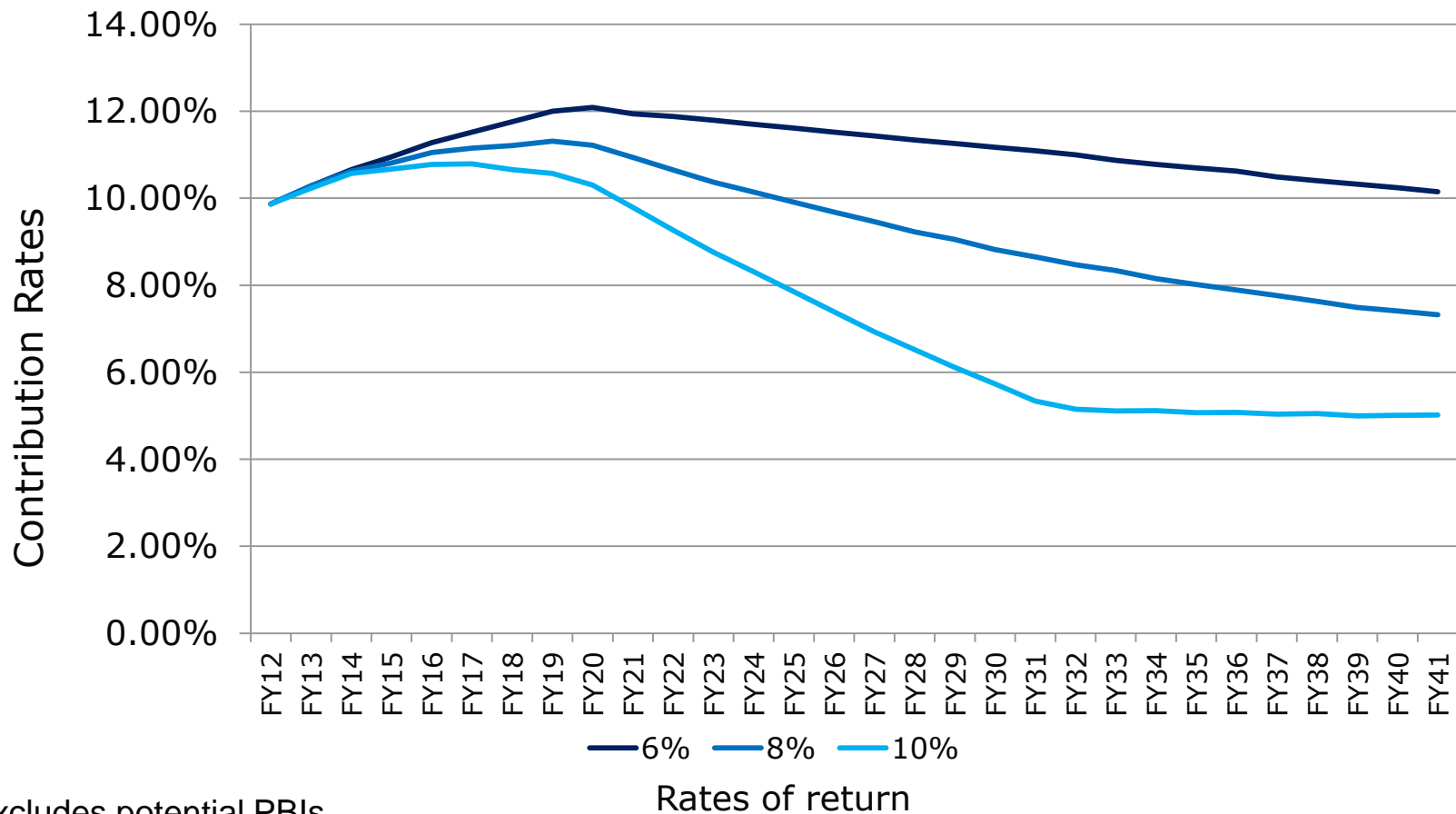


Contribution Rate Status and Projections



Defined Benefit Plan

Projected Contribution Rates*



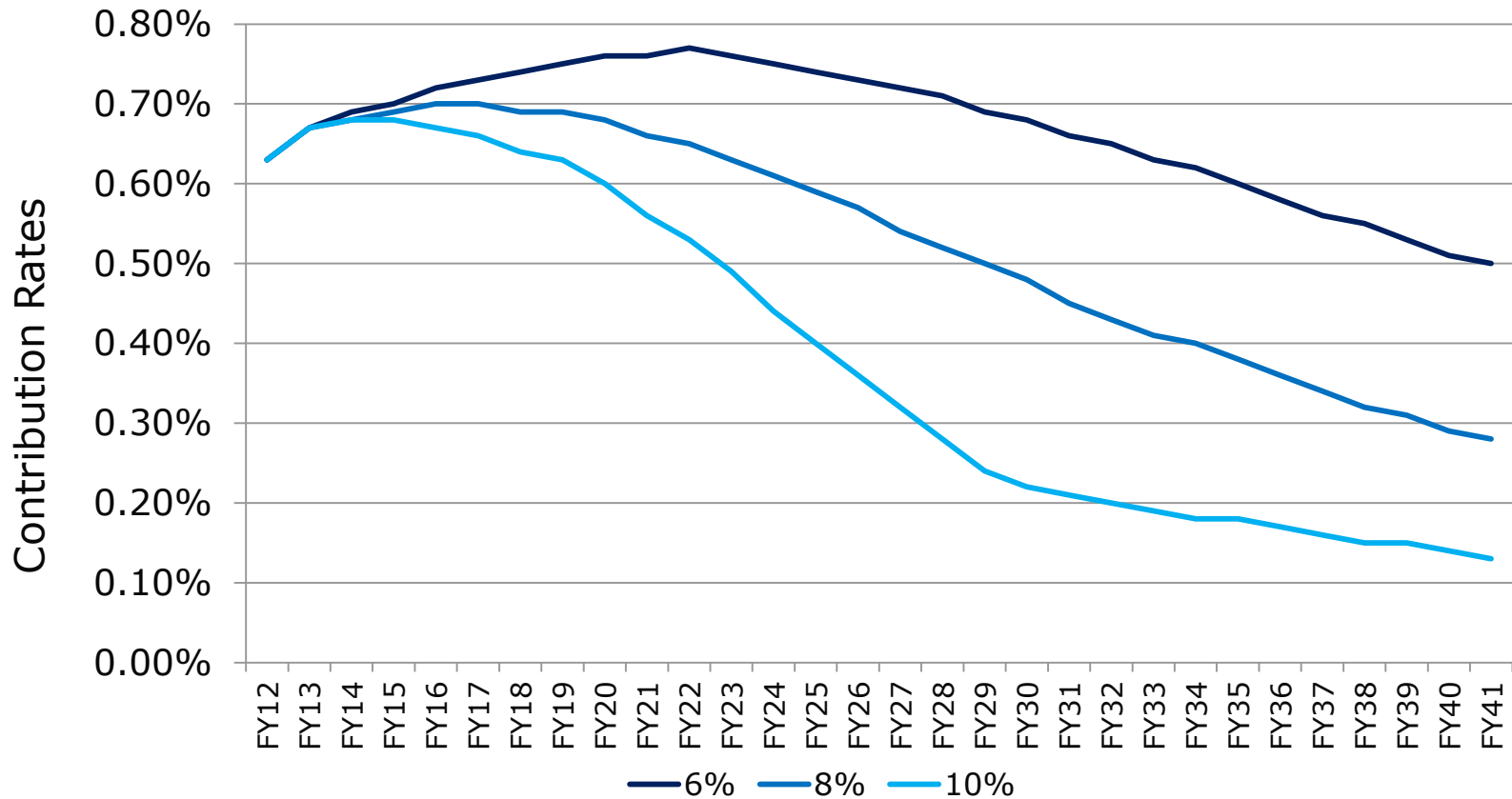
* Excludes potential PBIs

Based on June 30, 2010 Projections with constant Investment Returns and 0% Population Growth



Health Insurance Plan

Projected Contribution Rates



Rates of return

Based on June 30, 2010 Projections with constant Investment Returns and 0% Population Growth



References



Reference Material

- ❑ *\$50 Billion Tidal Wave: How Unfunded Pensions Could Overwhelm Arizona Taxpayers*, Briggs, Andrew G., Goldwater Institute, 2010
- ❑ *A Better Bang for the Buck: The Economic Efficiencies of Defined Benefit Pension Plans* , National Institute on Retirement Security, 2008
- ❑ *A Comparative Analysis of Defined Benefit and Defined Contribution Retirement Plans with Arizona References*, Matson, Paul and Dobel, Suzanne, 2006, www.azasrs.gov/web/pdf/DefinedBen_DefinedComp_WhitePaper.pdf
- ❑ *Arizona Public Pensions Underreport Funding Shortfalls*, Riggs, Andrew, Goldwater Institute, 2010
- ❑ *Look Before You Leap: The Unintended Consequences of Pension Freezes*, Boivie, Ilana and Almeida, Beth, National Institute on Retirement Security, 2008
- ❑ *Myths and Misperceptions of Defined Benefit and Defined Contribution Plans*, NASRA White Paper, 2002 updated 2005
- ❑ *Profitable Prudence: The Case for Public Employer Defined Benefit Plans*, Anderson G. and Brainard, K., Pension Research Council, Wharton School, 2004
- ❑ *Public Plan DB/DC Choices* , Olleman, Mark, Milliman, PERiScope Publication, 2009
- ❑ *The Crisis in Local Government Pensions in the United States*, Novy-Marx, Robert and Rauh, Joshua, 2010